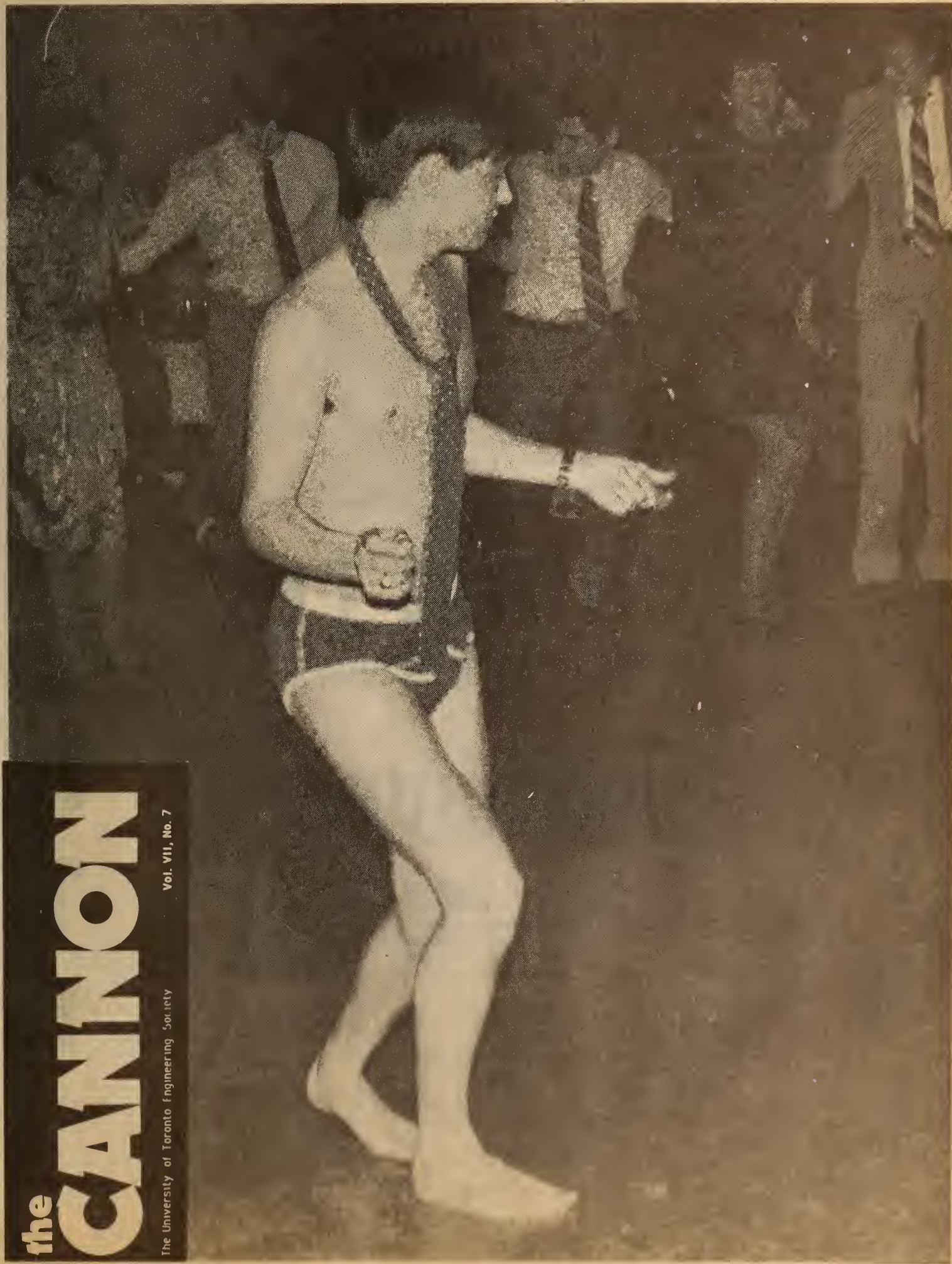


the  
**CANNON**

The University of Toronto Engineering Society

Vol. VII, No. 7



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**"COME AS YOUR  
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**SATURDAY MARCH 30 8PM**

**WETMORE HALL NEW COLLEGE**

**ADMISSION: \$2.50**

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*SF ATRIUM***

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# the CANNON

U of T Engineering Society

Vol. VII, No. 7

## Editor

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Skule™ is a registered trademark of the University of Toronto Engineering Society.

*The Cannon* is a publication of the University of Toronto Engineering Society. It is published monthly to announce Eng Soc events, discuss faculty and university matters, and present technical information of interest to Engineering undergraduates. Subscriptions are available, call Ella at 978-2917. Anyone interested in helping with *the Cannon* is most welcome.

*The Cannon* encourages submissions; please type or print legibly. Deadline for articles and letters for the next issue is Monday March 25, 1985. Comments on *the Cannon* or articles appearing in it are appreciated. The editor reserves the right to edit for brevity. Not all opinions presented here are those of the Engineering Society.

ISSN 0711-4370

### What is the status of SPIF?

As most of you know the special incidental fee ends this year. There will be a referendum on whether or not to continue it. Here is the proposal.

page 8

### Do we want our own employment service?

A presentation about a special employment officer for engineers. This is the subject of the other referendum so read carefully.

page 9

### Skule's Birthday was yesterday.

Did you sign the card?

page 10

### How blue is blue?

Seemingly trite, this is an important question in the manufacture of polymers. A graduate talks about one of the techniques used in industry.

page 12

### The Heirs to the Soc

Here are the candidates' statements for your perusal.

page 14

### In every issue

Editor's Comments	page 4
Letters to the Editor	4
News	6
President's Message	17
E.A.A. News	18
Employment	23



# Editor's Comments

Well decision time is upon us. And what a plethora of choice surrounds us, from Presidents of Eng Soc and S.A.C., to whether or not we want a drug plan on campus.

In this issue of the paper, there are several presentations concerning two referendums that will be held in conjunction with our own elections. Please take the time to read the briefs and ask questions of the candidates when they come to your classes as well as contact the authors of the reports. After all, it is your money that will be spent.

The elections that we are going

through now are but the start as we still have class and executive elections. So far as can be predicted, next year looks to be a calm one for the Eng. Soc., a time for regrouping after the hustle and bustle of the Centennial. I particularly urge the freshmen to get involved at this point in time. The Orientation Committee will be set up soon as well as the leadership of the Society's permanent committees.

But by no means is the Engineering Society the only place to get involved. I strongly urge all engineers to get involved in the

student chapters of the professional technical societies related to your discipline. Not only do they provide a means of getting a summer job, but the society's magazine provides a good indication of where your field is going and what are the areas that interest you.

Well, I leave you to your conscience. Just remember you don't have to be elected to do something around here. In fact at times, that is exactly what happens. Oh well.

## Letters to the Editor

### Fellow Students,

Once again the time for S.A.C. elections is upon us and, as an engineer, I request your support in my bid for the vice-presidency. As chairman of the Gumby Party and last January's Congress of Canadian Engineering Students, I feel that I have the combination of spirit and dedication necessary to bring S.A.C. back to a proper understanding of the needs of U of T's students!

The time has come for S.A.C. to stop its bickering, at the expense of professional faculties such as ours, and address itself to the concerns of all students. As an engineer, I can assure you that the views of professional students will

be well represented.

My running mates, St. Michael's College President John Canning and Erindale President Gail MacDonald, bring with them an extensive stock of experience in student government, making our ticket the only choice in this year's elections.

It's time to put the spirit of Gumby into S.A.C.

Dave Stubbings  
Vice-Presidential Candidate  
S.A.C. Elections

### Dear Editor,

I would like to commend Messrs. Bill Hollings and Paul Gooderham on their efforts to establish an Engineering Employment Office. I

am certain that an excellent service for all engineering students could be provided by this office. There exists a hidden employment market for U of T engineering students that is not now being effectively probed.

Though laudable and long overdue, this initiative is incomplete. When the proposal was presented at an Engineering Society Council meeting on February 25, there was little or no mention of the administration of the service. Questions were left unasked and/or unanswered:

*Who will hire the co-ordinator?*

*Who will set the job description?*

*How will the union*



*negotiations be handled?*

*Who will establish salary and authorize overtime if necessary?*

*How would the contributing bodies—students, alumni, and the Placement Centre—be involved in the running of the office?*

*What has the University Campus and Community Affairs Committee recommended in terms of fee collection and administration?*

Clearly, these issues must be addressed before the allocation of any funding can occur either directly from your wallet or indirectly via the Engineering Society.

No person who places any value on his/her money would spend it

so blindly. No company would approve funding for an inadequate and incomplete proposal. Given the following proposal: "It's a good idea. Give us the money now. The new system will solve many of your problems. We'll be back in a while with the actual system. We don't know exactly what it'll be like but we sure hope you'll like it enough to use it.", would you, as a professional engineer in industry, recommend spending a large sum of money on the proposed new computer system???

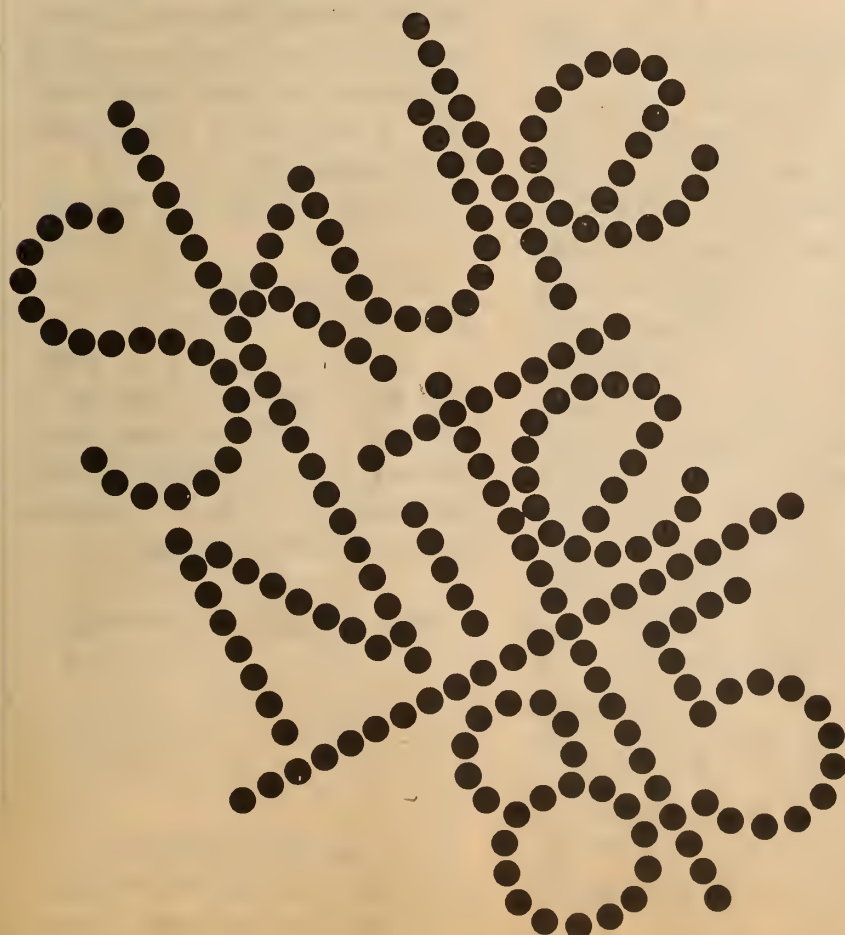
Given the lack of definition of the current proposal, I am afraid that the suggested office and officer will not meet with substantial success over an extended period of time. More defined services have met with their demise in recent years.

The fact that you may be paying a fee for this office in excess of the amount currently received by the Engineering Society should make you think before approving this fee. A service that has the potential to be as beneficial as an Engineering Employment Office deserves more careful consideration.

Engineering students' needs will not be met by the current proposal which is rushed and poorly prepared. *YOU* deserve an office that will be operating properly and accessible when *YOU* need it.

Don't throw your money down the drain—VOTE NO.

Sincerely,  
Helen Humphrey



**Skule™ Nite is Next Week!**  
March 13-16

Some tickets are still available at the Hart House Theatre Box Office (Wednesday being your best bet)

Information: 978-8668    Curtain time: 8:00pm



# News from All Over

## The \$100,000 Challenge

The Student's Administrative Council (S.A.C.) and the Association of Part-Time Undergraduate Students (A.P.U.S.) of the University of Toronto, in concert with the Department of Private Funding, wish to announce the \$100,000 Challenge, a major student funding initiative to raise money from U of T's recent graduates. In late February of this year each graduating student will be mailed a pledge card asking each graduate to donate \$1000 to the university over three years. It is hoped that through these donations the Class of '85 will donate \$100,000 to worthwhile university projects. This program will be the first of its kind in Ontario.

This program will be officially announced at a press conference March 25, at 11:30 am, at the Meeting Room in Hart House at the University of Toronto. U of T Olympic athletes Jill Ross-Giffin and David Steen will be at the press conference to help kick off the campaign, as will several student representatives.

Information kits and coffee will be available. For further information contact Nye Thomas, S.A.C. External Commissioner, at 978-4911 or Michael Schumacher, A.P.U.S. Liaison Officer, at 978-3993.

## Pro Facs Pub

The Social Committee is presenting a Professional Faculties Pub on Saturday March 30 at Wetmore Hall, New College.

Engineering and seven other faculties are sponsoring this event and all the proceeds will be going to ACCESS U of T. So this will be a great opportunity to meet students from other faculties and help a worthwhile charity at the same time.

The theme of the pub is "Come As Your Favourite Professional", so that means wear a costume—any costume! There will be prizes for the best costumes.

This will be the best (and last) pub of the year SO DON'T MISS IT!!!

Kim Harkness  
Social Committee Chairman

## Nuclear Conference

Continuing a tradition that extends back to the early 1970's, the Canadian Nuclear Association and Canadian Nuclear are sponsoring the 1985 CNA/CNS Student Conference on Nuclear Science and Engineering at the University of Toronto on Friday March 29 and Saturday March 30, 1985. This conference provides a forum for the exchange of ideas on a wide range of topics in the nuclear field such as Nuclear Physics, Reactor Engineering Design and Safety, Nuclear Medicine, Fusion, Applied Nuclear Chemistry and Physics and Nuclear Instrumentation. All university students, undergraduate and graduate, are eligible to attend in addition to representatives from faculty and industry. All the papers are contributed by university students from across Canada. It is

recommended that all students considering a career in any nuclear-related discipline consider attending this event as a way of observing the present state of university research in this field and as a way of meeting industry representatives. No registration fee is required.

For more information regarding conference activities and schedule, contact Glenn Pringle or Greg Evans at 978-5014 or in Room 133 in the Wallberg Building, 200 College St.

Glenn Pringle  
Chairman, Organizing Committee

## Employment Survey

At the request of the Career Counselling and Placement Centre, the fourth year classes were polled to find out how many people had jobs. In each class, people were asked whether they:

- a) had accepted a full time job offer,
- b) were still looking for a job, or
- c) were not looking for a job (e.g. going to graduate school, etc.)

A total of 270 responses were collected between January 28 and February 6, 1985. The results had the following breakdown:

	number of people	percentage
a)	22	8.8
b)	209	77.
c)	<u>39</u>	<u>15.</u>
Total	270	100.8

So if you don't have a job yet don't despair, you are not alone. Try dropping by the Career Centre



and signing up for a Job Search course. It couldn't hurt.

Paul Gooderham  
Employment Committee  
Chairman

### Skule™ Lottery Results

Well if you haven't heard already the Lottery Draw was earlier last month, the eighth to be exact. Here is a complete list of the winners.

1. Allison Gould—Week for Two in Jamaica
2. Jai Lee—Week for Two in Mont Ste. Anne.
3. Danny Serivalle—Night and Brunch for Two at the Royal York.
4. Mike Walker—Dinner for Two at the CN Tower
5. John Gordan—Drafting Pen Set.
6. Mike Leach—Roy Thompson Hall—Pair of Tickets.
7. Jeff Welsh—Squash Racquet.
8. Gordon O'Neill—Engineering Sweatshirt
9. Maureen Milne—E.A.A. Bag
10. William Loo—Tickets to the Copa.
11. Derry McCartney—Passes to Sparkles for 4.
12. Magda Dunn—same.
13. Robert Hunt—same.
14. Chris Mulligan—same.
15. Joseph Dinoble—same.
16. Laura-Lynn Blan—Toronto Sun Umbrella.
17. Anna Markopoulos—Toronto Sun Tote Bag.
18. Ming-Hin Law—Toronto Sun Clock.
19. Ann Newman—same
20. Vince Comella—Toronto Sun Wallet.

21. R. Davidson—same.
  22. Giuseppe Lio—Toronto Sun Toque.
- Grad Ball—Adir Gupta.  
Congratulations to all the winners and thanks to everyone who helped out.

Kevin Foody  
Fourth Year Chairman

### What Can you get for a buck?

This year on the S.A.C. ballot there is a referendum asking for an incidental fee of one dollar per St. George Campus student in support of the Downtown Legal Services Centre. Currently the funding is by a grant from S.A.C., which hovers around forty-five cents per student as well as contributions by legal bodies. In order that you may make an informed decision, here is a description of the D.L.S.C..

The Downtown Legal Services Centre, situated at 44 St. George Street, is run, with the aid of a full-time lawyer and secretary, by U of T law students.

The service is directed by an executive of six students elected by the law students working at the clinic and is funded by the

Student's Administrative Council (SAC), the Student's Law Society, the University's Law School, Ryerson Polytechnical Institute and the Ontario Legal Aid Plan.

Student volunteers provide a referral service and advice, or act on people's behalf to settle law suits or appear in court for civil and criminal matters.

The service handles a wide range of issues including landlord-tenant disputes, family problems, name changes, consumer complaints and academic differences. U of T law students working at the centre may also appear on behalf of clients before various boards and tribunals such as the Immigration Appeal Board.

The legal aid clinic is permitted to represent plaintiffs and defendants in Small Claims Court (for matters involving less than \$3,000), county courts and provincial courts (both family court and the criminal division for summary or less serious offences).

Before you head on down to the clinic, you should be certain that you qualify for the aid. You must have a case that the service is allowed by the law to handle, must meet the financial criteria and you must meet the geographical criteria.

Appointments for the clinic must be made in advance and are available at 978-6447 or 978-6448.

This is a valuable service that fellow students provide. If any balk at the cost, remember that every one at Queen's chips in \$1.50 for their clinic.



# S.P.I.F.

Dan Gerbec  
Executive Faculty Council Rep.

not unusual in such a situation. In my discussions with the various

**Continued on page 21**

Back in September when you paid your academic fees at this institution (for some of us it may have been a great deal later), included in that fee was \$100 fee which was described to you as an incidental academic fee.

With the exception of this year's graduating class, none of you would remember the inception of this fee about three years ago. At that time, the fee was proposed as an example to show alumni, government and industry how concerned engineering students at the University of Toronto were with the then financial situation. It was suggested that this contribution could be used as a "lever" for securing additional funding from industry and in particular, engineering alumni.

The original agreement with the Faculty ran for three years, this being the third year. For the fee to be continued, a referendum (oh no, not another one) must be held and a two-thirds majority of the engineering undergraduate students must approve its continuation.

The original agreement stated that the "incidental fee shall be used for supplies, equipment, and teaching assistants in courses taught by the Faculty of Applied Science and Engineering for its full-time undergraduate students."

There have been complaints that this fee has not been properly spent, that students have not been informed as to where the money is going, etc... Such complaints are

## **Preamble**

On behalf of all full-time students registered in the Faculty of Applied Science and Engineering. The University of Toronto Engineering Society proposes that a temporary incidental fee be levied upon full-time undergraduate students registered in the Faculty of Applied Science and Engineering, subject to the following nine provisions:

## **Provision 1**

The amount of the temporary incidental fee shall be \$100.00

## **Provision 2**

- a) The term of the temporary incidental fee shall be a maximum of one year.
- b) That year shall be the academic school year of 1985-86.

## **Provision 3**

The temporary incidental fee shall be reviewed by the Engineering Society Council in the spring of the 1986.

## **Provision 4**

The procedure for review of the temporary incidental fee shall consist of a presentation to the Engineering Society Council by the Faculty of Applied Science and Engineering. This review is meant as an information session only for the Engineering Society.

## **Provision 5**

Each department shall communicate to its students, through their respective staff-student councils, on a regular basis and demonstrate where the temporary incidental fee monies have been spent.

## **Provision 6**

The temporary incidental fee shall cease to exist after the 1985-86 academic school year.

## **Provision 7**

The temporary incidental fee shall be used for supplies, equipment, and teaching assistants in courses taught by the Faculty of Applied Science and Engineering for its full-time undergraduate students.

## **Provision 8**

The temporary incidental fee shall be collected by the University of Toronto with all regular fees for the 1985-86 academic school year, and shall be passed directly to the Faculty of Applied Science and Engineering.

## **Provision 9**

The nature and implementation of this agreement is absolutely contingent upon all of the preceding provisions.



# Employment Centre

David Stubbings  
Mech 8T6

Dave Gropp  
Mech 8T6

Paul Gooderham  
Employment Chairman

Bill Hollings  
President

As most of you know by now, during the summer, the Koffler Student Centre will be opening in the Old Metro Library Building at 20 St. George St. Among other things, the building will house the existing services of the Textbook Store, the Health Services and the Career Counselling and Placement Centre. Currently, the Placement Centre performs a more than adequate job of linking the students to industry, but when the Centre moves down to St. George St., just opposite us, more people will be inclined to use the Centre, and as a result, some upgrading is called for.

The Placement Centre is funded by the university, and as you can imagine, has a very limited budget. Within this budget, the Centre sends out about 500 letters a year to companies, mostly around the area of Southern Ontario. The Centre doesn't have the resources to follow-up and chase down these original contacts. It is widely accepted that most new jobs arise in the small business end of industry and a very large number of these jobs are lost either because they are not effectively followed up on, or else they were never contacted and they don't have the resources to come on campus to recruit.

Because of these limitations, there is a proposal to set up an Engineering Employment Office which would work very closely with the Placement Centre to solicit and follow-up on job opportunities for engineering students. This office would consist of one person, with his own office, either in the Koffler Student Centre or in the SF-Galbraith

complex. Space has been secured in both buildings and a decision could be made on this during the summer. The primary responsibility of the office would be to market U of T Engineering Students to industry and to chase down job opportunities. Companies need to be told why they should hire U of T Engineers. The officer would endeavour to make personal contact with as many companies as possible.

The idea for this Office comes from a number of different sources. Several students have independently brought up the idea and in fact, back in September the Placement Centre approached the Eng Soc with a similar proposal.

The Placement Centre is very interested in this idea, and would like to work with us to set up and maintain the office. Close association with the Centre on a project such as this is imperative in order not to duplicate any work or cause prospective employers to become confused if they were to be solicited twice. The Placement Centre has also offered the use of their clerical and administrative facilities to help maintain the office.

The Engineering Alumni Association is also interested in helping us maintain the office. As well as helping with the funding, they have offered to provide the Employment Office with their extensive industry contacts. Contacts such as the Alumni can provide would be invaluable in the

**Table 1**

\$32,000-37,000	— Personnel (one salary and benefits including raises for three years, averaged over three years).
\$ 8,000-10,000	— Expenses (mailing, travelling, long distance calls, etc.)
\$ 3,000- 5,000	— Office Overhead (phones, paper, personal computer or a terminal and/or a typewriter)
\$ 2,000- 3,000	— Contingencies (Unexpected Good Ideas, possible part-time secretarial help, etc.)
<hr/>	
\$45,000-55,000	— TOTAL

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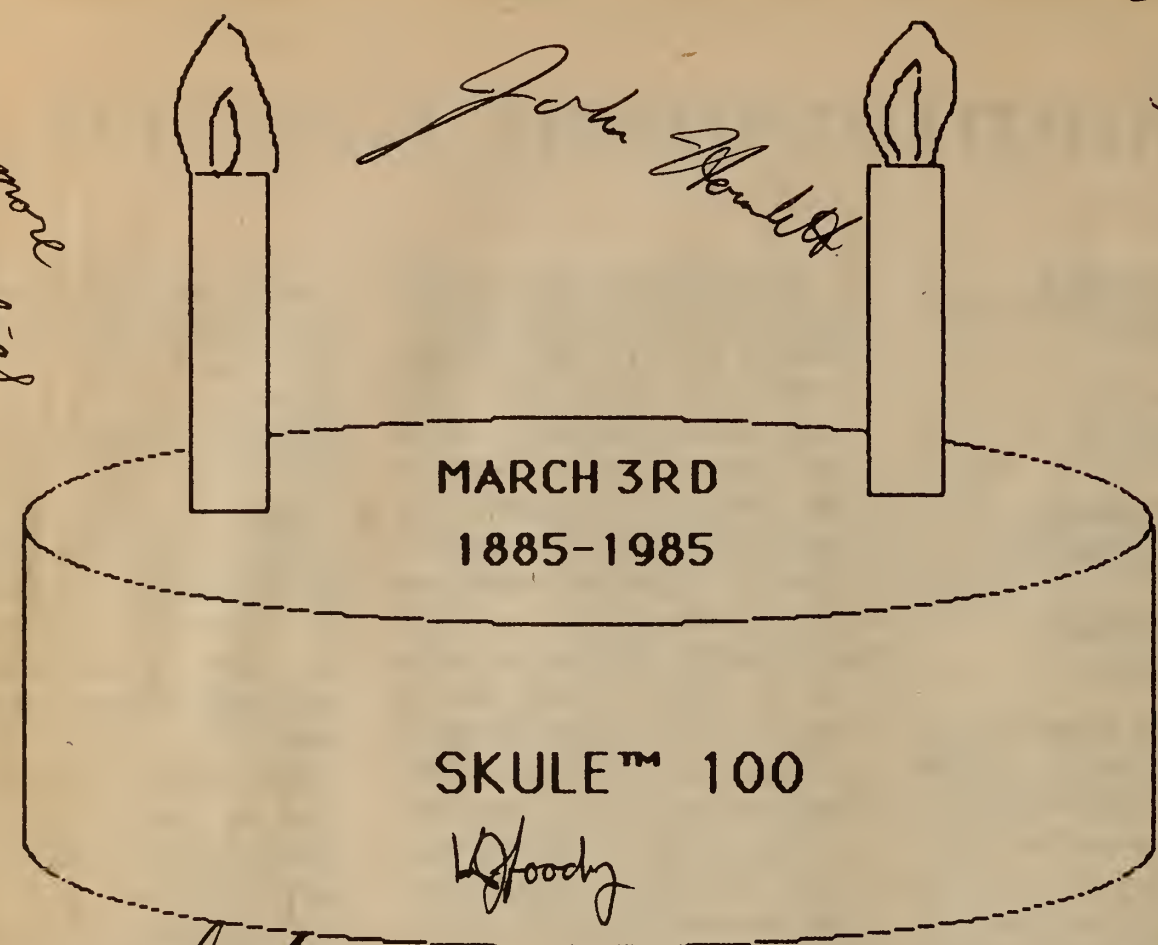


And many more  
of come! as  
Happy Birthday

H.B.!!!  
ena Kim

John Hendrix

Happy Birthday, my son!  
Happy Martin  
Nik



Lerk  
Nick C. Lopp  
Malcolm McShall

Happy Hundred!!  
Richard Fofana

Happy Birthday  
J. J. J. J. J.

Just  
xoxox

Garke

Happy B.D.  
Sally

Anne Carwright

Dr. Cannon

Betty Clarke

Dona E. Lee

Susan Smith  
Hampshire

Happy Birthday  
Just  
Shirley  
Amanda Lee

Clark and Thomsen  
xoxox



SPS  
- The only Faculty  
that Matters  
GuesDow

SKULE RULES  
R. Zingel

Happy Birthday  
Luis  
to the next 100!  
Merry

Luis Guncalvo

Aliaas  
Ba Chief

Teddy the Wander Lizard

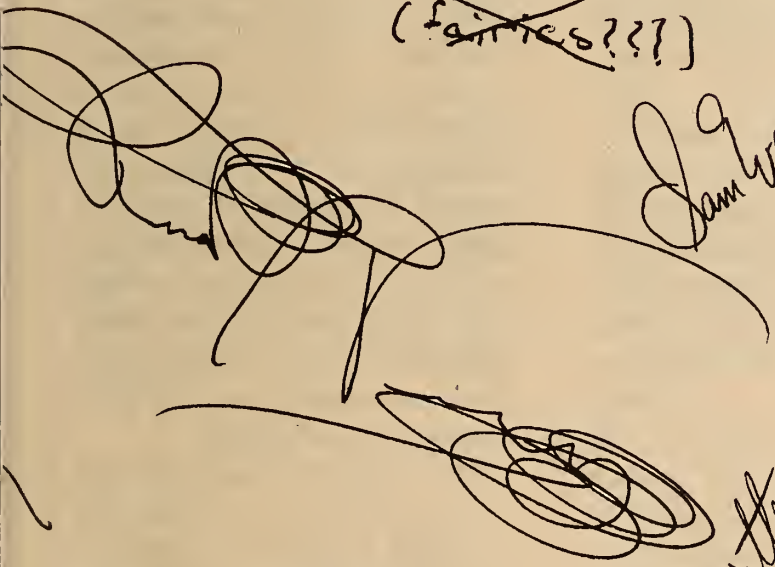
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+ 2700

Katherine  
Danesi

blue & golden gnomes  
(gnoams?)  
(grombs?)  
(fairies???)

RAP. Virent



Sam Yangchun

IT'S YOUR  
Happy Birthday  
Alton Jung  
BIG ONE ZERO ZERO.

John Brown

蔣君

La Ville de Quebec  
1985

What a place  
Where is Mister Happy?

Good luck getting  
a pair of shoes to find  
Dave (one)

Dave McMahon

Something remotely funny  
Happy Birthday  
Rob Lee!

being nice doesn't get  
you the big body count

-Allah

You're right  
Eng Sci does suck  
Lange

BEGINNING A NEW  
100 YEARS  
P.M. 11

Never too old to have fun!  
Mad Day

AKA for  
China  
Set  
the rugby  
team



# Quality of Colour

Randy Sinukoff  
Chem 8T2

Have you ever noticed how many packaged food we eat have "colour added" printed in the list of ingredients? It's probably not something you think about everyday. Colour is something we take for granted.

Differences in the redness of tomatoes (or greenness for that matter) or the transparency of the manufactured batches of polymer (say PVC or polyethylene) affect the colour of a finished product. In an industrial setting, these variables must be tolerated and controlled, so that ultimately, the product is accepted by the consumer. After all, green ketchup isn't too appetizing.

The human eye can distinguish over 10 million shades of colour yet the human brain has no absolute colour memory. When we look for socks to match the pants we put on this morning, we decide whether or not the shades are

complimentary and acceptable to our own standards. Imagine the dashboard of a car with parts that "matched" only as well as our clothing! Yet we can distinguish extremely small differences in colour. Thus colour matching is a vital aspect of product quality control.

There are three major factors affecting the colour that our eyes detect: source colour, shade of the object, and the eye response of the observer. Let's look at each individually.

**Source Colour:** Illuminants contain energy of many wavelengths. The visible range or spectrum, from wavelength 380 nanometers (nm) (blue) to 750 nm (red) is defined as that range of light to which the human eye responds.

Tungsten (incandescent), daylight, and fluorescent sources each produce different intensities of energy at each wavelength. A comparison of two sources is shown in Figure 1. Different spectral distributions

give a different appearance to the same object. Metamerism is the phenomenon of a colour match under one light source, but a difference in colour observed under different illumination.

**Object Shade:** The colour of an object is determined by the wavelengths of light that are reflected to the observer. A basket-ball reflects light in the orange part of the spectrum and absorbs all other wavelengths. Different shades of orange are obtained by reflectance of a slightly different combination of wavelengths.

Pigmentation, whether occurring naturally or added, reflects its own colour, thus resulting in the colour we see. Translucency and gloss also affect appearance. High translucency (low transparency) and high gloss make objects look lighter.

**Eye Response:** The human eye is most sensitive to light near 550 nm (green region) (see Figure 2). Response to different wavelengths also varies between individuals. "Colour blindness" is not an uncommon phenomenon and colour fatigue, the reduction of eye response to a constant colour stimulus, occurs readily.

Due to all the variations that arise on the detection of colour, standards are required. The spectral distributions of several illuminants have been determined and published. They were reproduced by means of a tungsten filament lamp shone through correction filters and have provided an accurate and low-cost manner of standardizing the light source used. These sources have

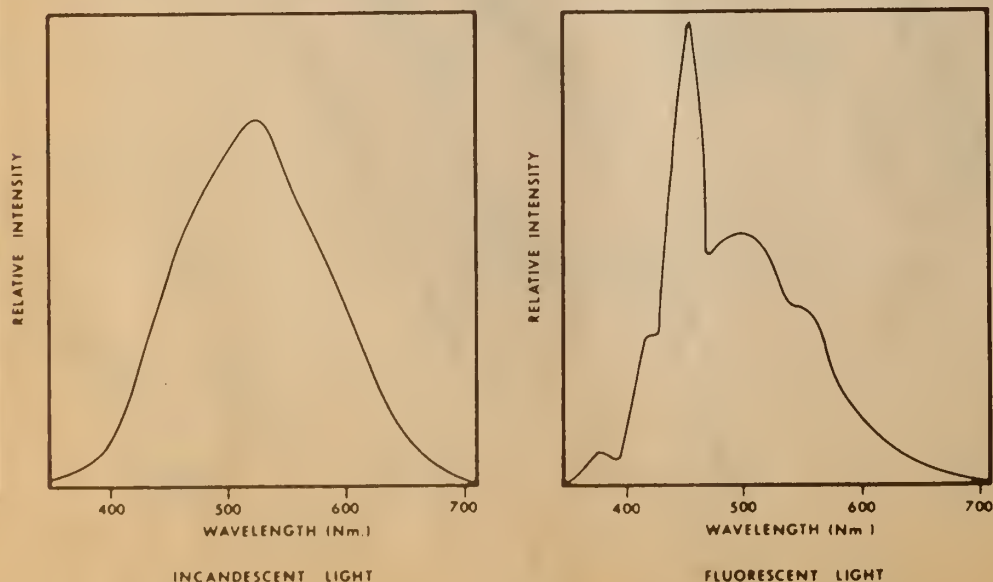


Figure 1: Color content of an incandescent light and a fluorescent light.



given rise to the colourimeters, reflectometers and spectrophotometers that are currently used in industry.

In order that each person describes the same colour the same way each time, several standard colour scales have been established. The most popular is the L, a, b colour space (see Figure 3). Alternatively called CIELAB, this system can be derived mathematically from another system which was derived from theory.

The CIELAB scale describes a colour finitely by assigning values to object lightness, the degree of redness, and degree of yellowness. Perfect white has an L value of 100 while perfect black equals zero. Positive " $a_L$ " values indicate

redness, negative " $a_L$ " shows greenness. A similar argument applies to " $b_L$ " (see figure 3). A ripe tomato might have L, a, b values of  $L=40$ ,  $a_L=25$ ,  $b_L=5$ .

Underlying this simple result is a vast quantity of repetitive and tedious calculations. The advent of computerized systems has made possible instrumentation which can analyze a colour sample product, compare it to a standard, and determine the L, a, b values under several different light sources. Software is also available to automatically determine the difference in colour from the standard, say whether or not it is within specifications and then tell the operator how to correct the discrepancy based on the

colour of pigments previously input into the computer memory.

Ideally, these instruments have been designed to supplement the eye of an observer; after-all, machines aren't human. In most cases, an increase in product quality, a reduction of waste, and more efficient manufacturing processes can be obtained.

There are still subjective decisions concerning the matching of plastics to metallic paints, or textured to shiny materials that only the eye of a trained observer can make. So the next time you jump into your car, put ketchup on your french fries, or open a second can of paint to continue painting the living room, remember the colour matching that went into keeping your eyes satisfied.



Figure 2: Relative response of a human eye at different wavelengths. (Adapted from Billmeyer, F. W., Jr. and Saltzman, M. Principles of Color Technology, Interscience, New York, 1966.)

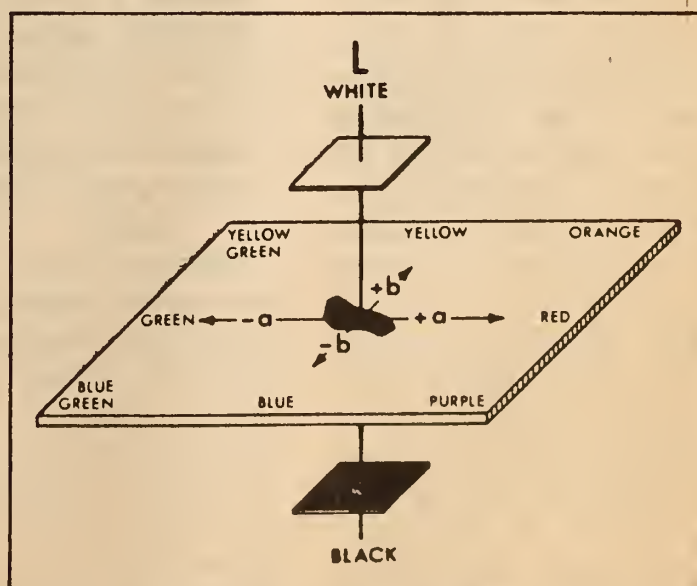


Figure 3: L, a, b Color Space.



*Engineering Society election week is now upon us, and the engineering buildings will soon be filled with 2700 blue and gold gnomes (gnoams?) (gnombs?) (fairies???) in search of the almost extinct,*

*curious land mammal known as the Conscientious Voter. If any are found alive, they will be dragged to the polls and forced to (a) think and (b) vote in a reasonable and responsible manner. They will then be tagged and freed*

*to avoid malicious kidnap and deviant torture by the Animal Saviours' Struggle against the Engineering Society (A.S.S.E.S).*

*These Conscientious Voters are well advised to vote for the ticket of*

## **Dow, Duriavig, Harkness, McMunn, Bateson**

Whether or not the Engineering Society performs adequately to benefit its constituents depends on the executive voted into power. This year, you, the voter, have a perfect chance to elect a full slate of five executive officers who are prepared to work together to pull the Engineering Society up by its own bootstraps. A unified ticket is better than five disorganized individuals because a ticket consists of five people that have already begun to work together. In addition, the members recognize each others' qualifications, and they have agreed to use these to achieve common goals. Each member of our team is experienced, competent, spirited, co-operative, and familiar with the workings of the Eng Soc.

For you, the students, to get what you want, there must be effective two-way communication between you and the executive. We will open the doors of the Eng Soc so that we may find out how to spend your fees in a way that benefits you most. After all, it's your \$16. We are prepared to spend it the way you want.

One of the executive's most important jobs is to deal with the faculty, the alumni, and the APEO on your behalf. The Engineering Alumni Association itself donated over \$16,000 for Eng Soc activities, from your Orientation to your Grad Ball. Our ticket will work intelligently with these groups to get the most for you.

Vote DOW, DURIAVIG,

**HARKNESS, McMUNN and BATESON:**  
*We have the teamwork and experience to get the right things done!*

### **Gregory Dow for President**

My name is GREGORY DOW and I feel that I have the best qualifications to be your Engineering Society President. The role of the Eng Soc President entails co-ordinating Society operations and being your official representative. In order to represent you, the undergrad, he must be able to communicate in both oral and written English. He must have the respect of the rest of the executive and be able to enlist their help in the organization of Society affairs. I have the experience, the spirit, the respect and the competence to be your Eng Soc President.

In this case, competence can be equated with knowledge of how the Society works. I spent one year as the Society's Treasurer and Skule™ Nite's Sound Co-ordinator, and another year as the BFC Chief and the SAC Review Committee's Chairman. Thus, I know the Society from many sides: from finance to spirit, from capers to conferences, from Skule™ Nite to SAC (hiss boo), from pub management to just about everything. No other third year student can honestly say the same.

Don't miss a golden opportunity: vote GREGORY DOW for your Eng Soc PRESIDENT. My experience makes me the only qualified

candidate, and I will do the best job for you.

### **Daniela Duriavig for Vice-President of Administration**

The Vice-President Administration is responsible for the day to day operations of the Engineering Society. This position needs to be filled by a dedicated, experienced individual who can successfully get people to work together. Hi! I'm DANIELA DURIIVIG, and I believe I am that individual.

I have been heavily involved in Skule™ activities these past 2 years. My involvements include participation in Orientation, Shinerama, and SAC Review Committees, help with *the Cannon*, and involvement in CCES. I am presently class rep for Chem 8T7 and member of the Engineering Society Executive as Chairman of the Professional Development Committee. This has given me an extensive knowledge of the workings of the Society and it's administrative aspects — qualities that make a good VP ADMINISTRATION.

What I offer on top of my experience is my commitment to serving YOU, the students. My main concern is that YOUR interests are served, and I will work with the rest of my ticket to see that this is done. On March 7 & 8 vote for experience, enthusiasm, and commitment to YOU! Vote DANIELA DURIIVIG for VP ADMINISTRATION!



# Teamwork and experience



## **Kim Harkness for Vice-President of Activities**

The V.P. Activities' responsibilities are to plan and run the Engineering Society's activities in co-operation with the Committee Chairmen.

I have gained experience essential to this position as the Frosh Chairman last year and as the Social Chairman this year. I have run events such as pubs, Oktoberfest and the Centennial Cannonball. Although Orientation is traditionally the responsibility of the V.P. Activities, I stepped in as the Orientation Chairman in his absence last summer. Last fall I was able to obtain an extra day for this year's Orientation.

My goal, beyond regular duties, is to improve this faculty's relations with other campus groups. U of T lacks identity and unity. We as Engineers are in the position to change this since we are the spirit leaders on campus.

This year I have been organizing

a pub, co-sponsored by seven other faculties in an attempt to encourage more joint events. We need more activities which promote campus wide participation.

On March 7 & 8 vote KIM HARKNESS for V.P. ACTIVITIES. I will use my experience to continue to run the events people want and to push for unity at U of T. I can make the year a success.

## **Craig McMunn for Treasurer**

I would like to be your Treasurer. I am a friendly and informative class rep, a diligent pub worker, and Speaker of Council for the Engineering Society.

To be a benefit to the undergraduate population, the Treasurer must be involved in many areas in order to understand the purpose and means of operation of the Society. Above all, the Treasurer must be easily accessible to respond to the student

needs.

My experience extends back to high school. I was President of the Athletic Association, Vice-President of the Student Council, and studied accounting in my senior years.

As Speaker of Council, I have experienced first hand the inner workings of council. I am always available for help or information because I live on campus.

By electing CRAIG McMUNN for TREASURER, you will be electing experience for yourself.

## **Jeremy Bateson for Secretary**

The position of Secretary is an important one for the Engineering Society. It involves the organization and maintenance of the Society's records and files as well as the administration of various services and events. The job requires a hardworking student with experience and enthusiasm.

I can meet these requirements with ability and determination. In my two years with the Eng Soc I have gained a good understanding of its inner workings. As Archivist I already have experience with the Society's files and records. My record of service includes a long list of committees and events. I am a member of the cast of Skule™ Nite. (I am also the assistant leedur of the LGMB.....shhhhhh!)

As Secretary I would like to ensure that a solid line of communication is maintained between the Eng Soc and you, the students, whom it serves. I would make this one of my primary objectives in helping the Eng Soc to maintain its record of good service.



# Luis for President

My name is LUIS ALEGRE, and I am running for President of the Engineering Society. In first year I was a Faculty Council representative; in second year, I was an Eng. Soc. rep; and this year I had the honour of representing Engineers as Vice President of the Engineering Society. As Vice President, I developed close ties with the administration. Running the Eng. Soc. is not an easy task, and my relationship with the Deans, and the other staff members will be an invaluable asset which will allow me to represent our views with greater impact. This year, we are also having a referendum to decide

whether or not to continue our \$100 incidental fee. When it was implemented we received a 100% increase in donations from alumni, totaling over \$200,000. As President I will use my experience in dealing with the administration, and alumni, to approach them for the needed funds. To show them that we recognize the need for funds we must stand united by voting "YES".

Furthermore, some students took it upon themselves to look into getting a full-time employee to search for jobs exclusively for engineers. I support their initiative to the fullest, and I promise, that if it is not



implemented by the end of this year, it will be of the highest priority in my administration! I know that I have the enthusiasm, and innovation for the position of President, and if you elect **LUIS ALEGRE for President**, you can be certain of having someone who truly represents Engineers!!

## Imagination

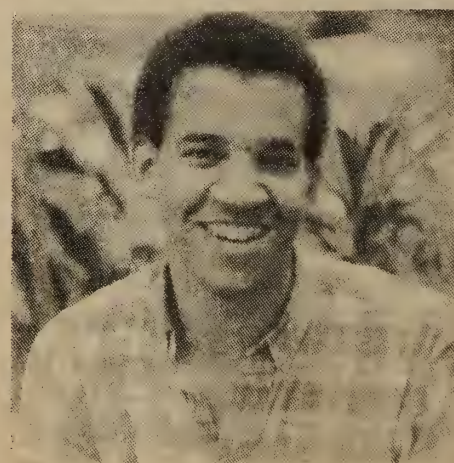
The Engineering Society needs experienced people who listen to what the students want. I've been involved in most areas of Skule™ life for the past two years and understand how Engineering works. I'm a performer/writer in Skule™ Nite and was a cast member in last year's musical-comedy, helped out with the Frosh orientation, was a class rep. last year, am the U. of T./Engineering Darts Club treasurer and a member of the U. of T. Gumby Party (Chief Director of Gumby's Secret Service).

V. P. ADMINISTRATION is a demanding position, but as Treasurer this year I already know where the money goes. I manage the Engineering Society

financial records, control over \$20,000 in investments, handle cash and records for pubs and helped prepare this year's budget. *We don't lack the money, we lack the imagination to try new ideas.*

Some of the things I'd like to have done next year include appointing a permanent worker at the U. of T. Placement Centre to deal exclusively with Engineering Student employment, setting up a strong money raising effort to support new programs—Skule™ Stage Band, chess/games club, darts club, special events—and getting another photocopier(!) for the basement.

I've got the enthusiasm and initiative to get the Engineering



Society back in touch with students and the determination to see that things *important to Engineers* get done.

I need your support. On March 7 and 8 vote Richard Fofana for V. P. ADMINISTRATION.



# President's Message

I feel that this is a time of celebration for all of us. As for me, I have cause to celebrate because this will be my last President's Message. As for the rest of the undergrads, you have cause to celebrate because this will be my last President's Message. Before I depart from these Hallowed Halls however, there is a great deal to be cleared up. So pay attention!

This Thursday and Friday, you are requested to vote in the Engineering Society elections. As well as participating in the usual ritual of electing the Officers of the Society for the upcoming year, the democratic process is being taxed to the limit this year, as we are presenting not one, but two referenda regarding your money. One is regarding the \$100 Special Incidental Fee, and the other is regarding the proposed Engineering Employment Office.

With regards to the Special Incidental Fee, some background explanation is in order. The Incidental Fee is NOT just a fee that has been placed on the undergraduate engineers by someone in an Ivory Tower who feels we should pay more than other students. Three years ago, the students of this faculty, recognizing the Faculty's lack of funding and the consequent slight decline in the quality of our education, held a referendum and VOLUNTARILY decided to pitch in with an extra \$100 per year on top of their base tuition fees. The only conditions on the donation were that the money was to be spent only on the undergraduates,

and only on equipment and other capital expenditures. At no point was the money to be included in the regular operating budget. The faculty was also required to account for these funds, to the Eng Soc, at the end of each year, and I can report that, for the most part, the money has indeed been spent as it was planned to have been spent.

Now, here's the part where you come in. The original deal was only for a test period of three years. That time is now up and we are requested once again to hold a referendum to decide if we should continue to pay the Fee.

If you want any further information on the subject, ask your class rep, or better yet, talk to a professor and ask him or her what the labs and facilities were like before the Fee was installed. I am quite confident that after you have done this, you will be in a position to make a responsible decision.

The other referendum that will be before you this week is the Engineering Employment Office question.

In light of the current economic recession (or depression depending on which political party you support), and the resulting low level of employment opportunities, a plan has been put forward to help the Career Counselling and Placement Centre establish more job contacts for engineers. Please read the detailed description on the plan elsewhere in this issue, but I will quickly sum it up in the following paragraphs.

The Placement Centre is

understaffed to the point where they now make initial contact with about 500 companies a year in the form of a letter, but they don't have the resources to follow-up on these preliminary contacts. Nor do they have the resources to approach and chase down a lot of the smaller companies that do not use the On-Campus Recruiting Service. The idea therefore, is for us to hire an employee, who would work either within or in tandem with the Placement Centre, and whose sole purpose would be to encourage companies to hire engineering undergraduates from the U of T for both summer and permanent positions.

The Office will be beneficial to the students who currently use the Centre, who will notice an increase in the number of positions available, and even the

**Continued on page 21**





# E. A. A.

Betty Dolinar  
E.A.A. Publicity Director

## S-Dance is for Everyone

With the sports season coming to a close, it is time again to reward our athletes and to recognize all the participants who have made this year successful. The Annual S-Dance will take on a more casual appearance this year in order to attract all Engineering students, jock and non-jock alike. It will be held at the S.A.C. Pub on Friday March 29, so keep that night open and share it with fellow engineers. (See advertisement for details.)

## E.A.A. Executive Wants You!

Nominations Close March 22nd.

March is turnover month as countless organizations search for new recruits for 1985-86. The Engineering Athletics Association is one such group.

Each year the E.A.A. President is selected by a vote of all engineering students held in conjunction with the Eng. Soc. elections. The other positions on the E.A.A. are described below (see inset). All students are

automatically members of the E.A.A. and may apply for any of the executive positions. If interested, please submit a short write-up on the position being applied for, name and phone number, your qualifications and reasons for applying for that position. Place the application in the E.A.A. President's mailbox in the Eng. Soc. Office no later than Friday March 22.

### Secretary/Treasurer

The secretary/treasurer minds the E.A.A. books preparing them for the yearly audit, as well as

taking minutes at all the meetings.

### Directors

The Men's and Women's Athletics Directors supervise the activities of their respective commissioners as well as organizing the Track and Field teams and Badminton teams. They represent Engineering Athletics at the Interfaculty level and sit on the Department of Athletics and Recreation Intramural Sports Committee.

The Director of Publicity co-ordinates all E.A.A. advertising. This executive member is responsible for writing article in *the Cannon* and *the Toike*, posting schedules and promoting athletic activities to the students.

All engineering tournaments are the responsibility of the Director of Tournaments to promote the spirit of athletics among engineering classes.

### Equipment Manager

Equipment records and inventories are maintained by the Equipment Manager. This person is



## E.A.A. Executive Positions

Secretary/Treasurer	Director of Publicity
Director of Men's Athletics	Equipment Manager
Director of Women's Athletics	Director of Tournaments
and Commissioners for	

Co-eds  
Skiing

Men's		Women's	
Soccer	Volleyball	Soccer	Volleyball
Lacrosse	Squash	Football	Squash
Football	Aquatics	Basketball	Hockey
Rugby	Hockey	Aquatics	
Basketball			



also responsible for the purchase and distribution of all equipment. Since a significant amount of time

must be spent at the beginning and end of each season to organize

equipment distribution and collection, a financial honorarium is given to the individual upon successful completion of the job.

#### Commissioners

A men's or women's commissioner oversees every sport where Engineering fields a team. These commissioners must attend all E.A.A. meetings, enter their teams into the interfaculty leagues and attend the D.A.R. standing committee meetings for their sport. It is the commissioner's job to find managers and coaches for their teams and to inform the players of pertinent information through the managers.

#### Ski Meet

The men's ski teams dominated the slopes of Medonte during the Intramural Ski Meet held on Friday February 2nd. They placed 2nd overall with the experienced teams holding 2nd and 3rd spots in their division and the novice teams finishing 1st and 3rd in the novice division. Congratulations to Eugene Trusler who ranked 2nd in overall individual competition and to the teams for their outstanding performance.

#### Intramural Awards Night

The intramural awards night, presented by the Intramural Sports Committee, will be held Thursday March 28 at DJ's. The event is open to all students, and I would like to remind the Men's Div I Soccer and Rugby teams that they will be presented awards that evening. The awards night begins at 7:00pm.



#### January's Athlete of the Month

Gabe Kauffman, shown here with Malcolm McGrath, was the Alumni Athlete of the Month for January.



the E.A.A. presents

# THE 129<sup>TH</sup> ANNUAL DANCE



FRIDAY, MARCH 29<sup>TH</sup>

7.30 P.M. SID SMITH PUB



← Meet members of the  
Championship Rugby team!

\* BEER/COCKTAILS

\* AWARDS

\* DANCING

Free Tickets in the Stores

### Continued from page 8

club chairmen, I was left under the impression that these are not valid complaints. The information as to when and where the money is spent is available if the student really wants to find out.

Well, that is the situation as it sits now. The Faculty's position on this fee is that it would like to see it continued in some form. What

we are proposing is that the fee be extended for (1) year after which another referendum would be required to extend it again. The reasoning behind this involves some of the recommendations of the Bovey commission. The Bovey report suggested the raising of tuition fees substantially. It is the Engineering Society's view, as well as the Faculty's, that the incidental fee would be dropped after the first \$100 increase in

tuition. In other words, when tuition fees are raised, the first \$100 would go to replace the incidental fees we have been paying.

Attached is a copy of the proposed agreement. READ IT!!!! It concerns your future in this faculty. Make a *decision* and then VOTE on it. This is a matter which requires some serious thinking on your part as to whether you wish to continue this practice or not.

### Continued from page 9

operation of an Employment Office.

Now for the meat of the matter. In order to get a good cost estimate, discussions were held with both the Faculty and the Placement Centre. The Centre used their own experience and also contacted the University of Waterloo to determine what a good estimate would be. The information from all sources yielded the accompanying table.

A good number to start the office out with would be the middle-of-the-road figure of \$50,000 which, assuming a population of 2,600 undergraduates, translates to \$19.25 per student per year.

On the benefit side, it is hard to put a dollar value on the service that would be provided. Obviously, the people who use the Placement Centre will notice an increase in the number of permanent and summer jobs available for engineering students. Even those people who do not use the Placement Centre, but prefer to apply to companies directly, will find their task considerably easier because, in all likelihood, the companies will already have been contacted, and part of the saleswork will already have been done. A major effect of this office will be to cause companies to become aware of the U of T, and the skills of our engineering undergraduates, even if the company is not in a position to hire at the time they are contacted.

This whole topic was discussed at the Eng. Soc. Council Meeting on Tuesday February 26. The councillors voted overwhelmingly to place the question of an Engineering Placement Centre on a referendum. When you go to the polls to vote in the Eng. Soc. Elections on March 7th and 8th, a question to the effect of "Do you support an extra contribution of \$19.25 per student, per year for the next three years to set up an Engineering Employment Office with the mandate of increasing the number of both summer and permanent jobs for U of T Engineering Undergraduates?"

At the end of the three year period, the Eng. Soc. will review the question and at that time decide whether the office should be continued.

### Continued from page 17

students who prefer to apply directly to the companies, who will find that a contact from the U of T has already been made and that the prospective employer will, by that time, be full of confidence in the quality of U of T Engineering students. Either way you look at it, you can't lose.

The cost of this Engineering Employment Office has been estimated at \$19.25 per student

per year. Again for a detailed breakdown, see the other article.

It appears then that, for less than the price of a dinner and a movie with your girlfriend/boyfriend, you will have a substantially better chance of landing a decent, course-related job, and after all, isn't that the main reason why most of us are here in the first place? So, to better your education, and to better your prospects of using your education in industry, I urge you to vote YES to both referenda

questions.

Well, enough about business. I wish to close off this message by saying that it has been both a pleasure and a privilege to serve this term... this Centennial term... as your President.

Non illegitimi carborundum.

Scite et Strenue  
Skillfully and Vigourously,

Bill Hollings  
President



*Are you secretly wishing  
for winter to last longer,  
because you don't have any  
really classy summer shirts?*

*We'll throw away those fears  
because*

# **the Engineering Stores**

**have a complete  
selection of golf-  
shirts and T-shirts**

**just perfect for  
summer.**

*Drop in and see us Monday  
to Friday, 8:45 to 4:30*



# Employment News

An effective resumé is essential in the job search process whether it be for permanent or summer employment.

Your resumé is a personal history of you. It is the primary written tool by which you can convince an employer of your suitability for a position. Your resumé provides you with the opportunity to sell yourself in a format which is most flattering to you.

## What to Include in Your Resumé

*Personal information.* Name, address, telephone number (home and office or number for a message). Optional: Marital status, citizenship, age, weight, height. These are typically not included, unless the candidate feels the inclusion of one or more of the above might act to his/her advantage.

*Career/Job Objective* (optional). Only include this section if you are applying for a specific type of position, otherwise it may be too restrictive. If included, it may be a brief statement of immediate career goal, with reference to a career area.

*Education.* Begin with most recent education. State name of institution, year graduated, degree level obtained, major or specialty,

minor subjects. Secondary School is optional. Awards, scholarships received may be included here.

*Work Experience.* For each summer, part-time and permanent job, list company name, general location, dates of employment and position title. Using action verbs (e.g. 'organized, supervised, developed, analysed') indicate duties performed, level of responsibility attained, skills developed and results achieved. This requires that you carefully analyse each job you have had. Avoid using personal pronouns, abbreviations, technical jargon. Of special significance are experiences illustrating leadership potential, organizational ability, communication skills, ingenuity and teamwork. If you have a great deal of work experience, some earlier part-time or summer jobs may be omitted.

*Interest, Activities.* Volunteer activities, school organizations and clubs, stating dates, your accomplishments and organization name. Memberships in professional associations. Any elective positions which you have held. Omit references to race, religion, or political affiliation. Hobbies, sports, other leisure activities.

*References.* 'Available Upon Request' is often used. If included,

name, position title, address and telephone number should appear. References should ideally be previous employers, or past professors if you are unable to obtain the former. Remember to always obtain permission before listing someone as a reference.

## Resumé Format

The most widely used format is the Chronological Resumé. When using this format, list your experience in reverse chronological order, beginning with most recent positions. The information is usually presented in point form. Samples of this format and others are available in the Career Resource Library at the Career Counselling and Placement Centre. The order in which you present the information is up to you. The most significant sections should appear first to attract a busy employer's attention.

## Resumé Tips

- appearance is important, be neat, organized and professional.
- consider having your resumé professionally typed and copied.
- be concise; your resumé should not exceed two pages.
- consider having a Career Counsellor check your draft before you send it to an employer.

## Noon Hour Concerts

March 20th North Park Secondary (Brampton)  
27th Markham High School  
April 3rd R. H. King Collegiate



# A NEW DIMENSION.

S  
U  
D  
S



## BLUE WITH A TWIST.

A new shape of Blue. A new twist-off cap, making your Blue easier to get to. Keep on smiling.

Don't worry about the beer strike  
Suds has plenty of beer!!  
Remember that the election pub  
will follow the pub in the cafe on  
Friday.